

Chemosynthetic Potential in Ocean Sediments could have implications in Global Carbon Cycle

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The microbial role in Global Carbon Cycle could be significant as these organisms are known to be a source and sink of CO₂. Though much literature is available on heterotrophic respiration and phototrophic CO₂, very little ground has been covered on the chemosynthetic potential of microbes especially of ocean sediments. In this overview we compare different rates of chemosynthetic potential prevailing in the ocean sediment of Pacific, Atlantic and Indian Oceans. The results show that the contribution by bacterial and archaeal communities could be significant. The presentation would discuss these values against the backdrop of autotrophic CO₂ fixation and respiration.